



Attorney Docket No. 2676-000008

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Group Art Unit:	2613	)	
Examiner:	David J. Lee	)	
Applicants:	Jakobik et al	)	<b>Reply Brief</b>
Serial No.:	10/004,097	)	
Filed:	October 31, 2001	)	
Title:	Architectural Arrangement for Core Optical Networks	)	

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**REPLY BRIEF ON BEHALF OF APPELLANTS**

This is a reply to the Examiner's answer dated May 19, 2006 regarding the pending appeal of the present application. .

### **Arguments**

Applicant's invention is directed generally to an architectural arrangement that enables optical switching at different optical layers within an optical transport network. To enable switching, signal impairment compensation is performed at each layer of the network. In addition, compensation must be applied to each optical signal within a given layer to achieve the signal conditioning needed to route optical signals from different layers over long distances.

Of particular note, the Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time of the invention to perform dispersion compensation on the signals exiting MUXs 144-2 and 144-4 in the same way that Nakamoto performs compensation on the signals exiting MUXs 144-3, 144-6, 144-7 and 144-5. However, to maintain polarization conditions of adjacent channels cross orthogonal to each other, these signals cannot undergo any signal conditioning in accordance with the teachings of Nakamoto. Basis for this assertion is found throughout the reference, including col. 20, line 1-3 and col. 21, lines 64-67. Therefore, Applicant believes the Examiner's assertion to be incorrect. Rather, Nakamoto fails to teach or suggest performing signal impairment compensation on each of the optical signals within a given layer as recited in Applicant's claimed invention. Absent this teaching, Applicant believes the pending claims define patentable subject matter over the relied upon combination of references.

Applicant continues to maintain the arguments set forth in previous correspondence with the Examiner. Accordingly, applicants respectfully request the Board to reconsider and withdraw the current rejections.

For the foregoing reasons, the appealed claims are patentably distinguishable over the art relied upon by the Examiner. Accordingly, Applicant's representative respectfully requests that this Board reverse the final rejection of Claims 1-7, 9-31 and 33-36.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Timothy D. MacIntyre', is written over a horizontal line.

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Dated: July 19, 2006

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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/004,097
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	First Named Inventor	Jakobik et al
	Art Unit	2613
	Examiner Name	David J. Lee
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm or Individual name	Harness, Dickey & Pierce, P.L.C.	Attorney Name Timothy D. MacIntyre	Reg. No. 42824
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Date	July 19, 2006		

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